Ultra High Brightness/Low Cost Fiber Coupled Packaging, Phase II



Completed Technology Project (2007 - 2008)

Project Introduction

High peak power, high efficiency, high reliability lightweight, low cost QCW laser diode pump modules with up to 1000W of QCW output become possible with nLight's new laser diode package methodology. Following the design principles from our Phase I results, we propose an innovative packaging architecture to provide NASA with highly reliable 808nm laser diode pump sources for space based LADAR systems or other uses. nLight proposes a package development program to demonstrate up to 1000W of QCW pump power, with greater than 100E8 laser shot reliability.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Туре	Location
☆Goddard Space	Lead	NASA	Greenbelt,
Flight Center(GSFC)	Organization	Center	Maryland
nLight Photonics	Supporting	Industry	Vancouver,
Corporation	Organization		Washington

Primary U.S. Work Locations	
Maryland	Washington



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Goddard Space Flight Center (GSFC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer



Small Business Innovation Research/Small Business Tech Transfer

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Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

 TX05 Communications, Navigation, and Orbital Debris Tracking and Characterization Systems
TX05.1 Optical Communications
TX05.1.3 Lasers

